CLAIMS

1. A method of inhibiting lung tumorigenesis in a mammal in need thereof, which method comprises administering to the mammal an effective amount of a conjugate of an isothiocyanate at the post-initiation stages of tumor growth.

2. The method of claim 1 wherein the isothiocyanate is selected from the group consisting of phenethyl isothiocyanate; benzyl isothiocyanate; methyl isothiocyanate; ethyl isothiocyanate; propyl isothiocyanate; isopropyl isothiocyanate; n-butyl isothiocyanate; t-butyl isothiocyanate; s-butyl isothiocyanate; pentyl isothiocyanate; hexyl isothiocyanate; heptyl isothiocyanate; octyl isothiocyanate; nonyl isothiocyanate; decyl isothiocyanate; undecane isothiocyanate; phenyl isothiocyanate; o-tolyl isothiocyanate; 2-fluorophenyl isothiocyanate; 3-fluorophenyl isothiocyanate; 4-fluorophenyl isothiocyanate; 2-nitrophenyl isothiocyanate; 3-nitrophenyl isothiocyanate; 4-nitrophenyl isothiocyanate; 2-chlorophenyl isothiocyanate; 2-bromophenyl isothiocyanate; 3-chlorophenyl isothiocyanate; 3-bromophenyl isothiocyanate; 4-chlorophenyl isothiocyanate; 2,4-dichlorophenyl isothiocyanate; R-(+)-alpha-methylbenzyl isothiocyanate; S-(-)-alpha-methylbenzyl isothiocyanate; 3-isoprenyl-alpha,alpha-dimethylbenzyl isothiocyanate; trans-2-phenylcyclopropyl isothiocyanate; 1,3-bis(isothiocyanatomethyl)-benzene; 1,3-bis(1-isothiocyanato-1-methylethyl)benzene; 2-ethylphenyl isothiocyanate; benzoyl isothiocyanate; 1-naphthyl isothiocyanate; benzoyl isothiocyanate; 4-bromophenyl isothiocyanate; 2-methoxyphenyl isothiocyanate; m-tolyl isothiocyanate; alpha, alpha, alpha-trifluoro-m-tolyl isothiocyanate; 3-fluorophenyl isothiocyanate; 3-chlorophenyl isothiocyanate; 3-bromophenyl isothiocyanate; 1,4-phenylene diisothiocyanate; 1-isothiocyanato-4-(trans- 4-propylcyclohexyl)benzene; 1-(trans-4-hexylcyclohexyl)-4-isothiocyanatobenzene; 1-isothiocyanato-4-(trans-4-octylcyclohexyl) benzene; 2-methylbenzyl isothiocyanate; 2-chlorobenzo isothiocyanate; 3-chlorobenzo isothiocyanate; 4-chlorobenzo isothiocyanate; m-toluyl isothiocyanate; and p-toluyl isothiocyanate.

3. The method of claim 1 wherein the isothiocyanate is selected from the group consisting of phenethyl isothiocyanate, benzyl isothiocyanate, and sulforaphane.

4. The method of claim 1 wherein the conjugate is a thiol conjugate.

5. The method of claim 4 wherein the thiol is selected from the group consisting of L-Cys, Glutathione, and N-acetyl-L-cysteine conjugates.

6. The method of claim 4 wherein the thiol is a N-acetyl-L-cysteine.

7. The method of claim 1 wherein the mammal is a human.

8. The method of claim 7, wherein the human is selected form the group consisting of smokers, ex-smokers, workers exposed to second-hand smoke, and chemical plant workers.

9. The method of claim 1 wherein the administration is oral.

10. The method of claim 1 wherein the conjugate is administered orally as a tablet or a capsule.

11. The method of claim 1 wherein the amount administered is 20-80 mg, two to three times daily.

12. The method of claim 1 wherein the tumor growth is malignant or non-malignant.

13. A method of inhibiting lung tumorigenesis in a human in need thereof, which method comprises oral administration of 20-80 mg capsules of PEITC-NAC, two to three times daily, at the post-initiation stages of tumor growth.

14. A method of inhibiting lung tumorigenesis in a mammal in need thereof, which method comprises administering to a human an effective amount of phenethyl isothiocyanate NAC conjugate at the post-initiation stages of cancer.

15. A pharmaceutical formulation comprising an isothiocyanate conjugate and a pharmaceutically acceptable carrier.

16. A pharmaceutical formulation of claim 15, wherein the pharmaceutically acceptable carrier is a USP grade buffered solution.

17. A pharmaceutical formulation of claim 15, wherein the isothiocyanate conjugate is selected from the group consisting of phenethyl isothiocyanate-NAC, benzyl isothiocyanate-NAC, and sulforaphane-NAC.